A Web-based People Information Retrieval System

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Background. Access to institution-wide information about people's identities, titles, research interests, and clinical responsibilities is critical for efficient utilization of Medical Center resources. For example, the ability to rapidly obtain the contact information for individuals with a particular clinical interest or patient care emphasis is important for primary-care physicians who need to refer their patients to a specialist. As is the case for most institutions, such information at VUMC is currently not centralized; available information is split among several databases, making retrieval difficult and error-prone. Updating these disparate databases is currently a manual process, and the data is thus potentially inaccurate or out-of-date. The process of updating the databases involves little direct input from the people whose information is being collected. Moreover, much knowledge about individuals' research interests, expertise, and professional roles is currently compartmentalized and not easily accessible. The ideal solution would support the collection of this knowledge in an organized fashion which allows individuals to fill in different views at the appropriate level of detail.

A new WWW-based information retrieval system, utilizing a centralized database, is being developed as a solution to this problem. The system allows individuals to verify and maintain their own information, thus helping to keep records accurate and timely. Existing review and validation processes can be integrated with the system to provide authoritative verification of information such as job title and responsibilities. Individuals may choose which fields to make public (to various degrees) and which ones to keep private. Added functionality, such as the ability to publish a schedule for available appointment times, will improve the efficiency of referrals. Another strategy of the system is to collect data from users at the time they are requesting access to particular services. For example, the initial request for an email account can also be used to verify and record the user's name and telephone number.

System. A relational database management system, Oracle®, houses employee records. The database was initially populated with records from the existing authentication database. A web-based information retrieval interface allows users to access all information in the database that has been tagged "Public", such as Name, Department, Title, and Patient Care Emphasis. Access to "Private" information, such as pager, direct office phone number, or schedule, is available to authenticated users, based on their defined access levels. For example, a VUMC physician can use the system to obtain another VUMC physician's office number, or availability to see referred patients. Employees can update their own information via the Web interface, thus keeping data up-to-date. Modifications that require validation are forwarded for administrative review before insertion into the database.

Conclusion. A Web-based interface to an institution-wide database, containing information about all the people at the Medical Center, will greatly facilitate the sharing of knowledge about individuals and resources. Access to information is enhanced by the Web-based interface, as any user with a Web browser and an Internet connection can retrieve information.

User-maintenance of data will help keep records timely and accurate, while access to private information, *e.g.*, schedules, based on access levels will facilitate inter-physician communication. Thus, this tool can be used both as a data collection resource and as a communications tool.

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